DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: Mystic Station
Facility Address: 173 Alford Street, Boston, MA
Facility EPA ID #: MAD000842401

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   __X__ If yes - check here and continue with #2 below.

   _____ If no - re-evaluate existing data, or

   _____ If data are not available skip to #6 and enter"IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	**X**			**See Attached Narrative**
Air (indoors)[2]		**X**		
Surface Soil (e.g., <2 ft)	**X**			
Surface Water		**X**		
Sediment		**X**		
Subsurf. Soil (e.g., >2 ft)	**X**			
Air (outdoors)		**X**		

____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

__X__ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s): See attached narrative

Footnotes:

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Air (indoors)	--	--	--	--	--	--	--
Soil (surface, e.g., <2 ft)	**No**	**Yes**	**No**	**Yes**	**No**	**No**	**No**
Surface Water	--	--	--	--	--	--	--
Sediment	--	--	--	--	--	--	--
Soil (subsurface e.g., >2 ft)	**No**	**No**	**No**	**Yes**	**No**	**No**	**No**
Air (outdoors)	--	--	--	--	--	--	--

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

_____ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

__X__ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s): See attached narrative

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4 Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

__X__ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s): See attached narrative

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5 Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Mystic Station facility, EPA ID # MAD000842401, located at 173 Alford Street, Boston, Massachusetts under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Completed by (signature) _____ Date 7/27/11
(print) David E. Crowe
(title) Senior Project Manager

Supervisor (signature) _____ Date _____
(print)
(title)
(EPA Region or State)

12/13/12

Locations where References may be found:

GZA GeoEnvironmental, Inc., One Edgewater Dr. Norwood, MA 02062

Contact telephone and e-mail numbers

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(phone #) 617.381-2335
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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

RCRA Corrective Action
Environmental Indicator (EI) RCRIS Code (CA725)
Current Human Exposures Under Control

The following narrative expands on the conclusions reached in each step of the Environmental Indicator Determination for RCRIS Code CA725 – Current Human Exposures Under Control. Headings used for these notes correspond to the item numbers in the determination worksheet. In this evaluation, Massachusetts Contingency Plan (MCP, 310 CMR 40.0000) standards were used to evaluate the risk (if any) that identified contaminants pose to human receptors.

BACKGROUND

In 2009, Mabbett & Associated, Inc. (M&A) prepared a RCRA Facility Assessment Report for the Mystic Station (Site) at 173 Alford Street, Boston, Massachusetts. The Facility Assessment Report included a comprehensive review of historic releases of oil and/or hazardous materials (OHM) identified at the facility. The M&A report listed one Solid Waste Management Unit (SWMU) and seven Areas of Concern (AOCs) where additional RCRA Facility Investigations (RFI) were recommended. GZA and Boston Generating subsequently refuted the inclusion of the SWMU and two of the AOCs, and suggested potential response actions for the remaining AOCs situated on property under direct control by Boston Generating. It should be noted that one of the open AOCs (AOC 19 – Release Tracking Number (RTN) 3-20199, Electrical Substation) is situated on property independently operated and controlled by NSTAR Electric & Gas Company. GZA understands that NSTAR has provided information related to this AOC which has resulted in a finding of No Further Action required.

The table below documents the SWMUs and AOCs, and provides a description of the nature of the release and response actions conducted to date. This table was included to provide a brief summary of the various SWMUs and AOCs. Please refer to M&A's Report for a more comprehensive description of the nature and extent of noted contamination. Justification for decisions made on the Environmental Indicator Determination for RCRIS Code CA725 immediately follow the table.

SWMU/ AOC Number	SWMU/AOC Name	Waste Managed	Discussion
SWMU 1	Oil Separator Pit/Former 1,000-gallon Waste Oil Underground Storage Tank (UST)	Waste Oil	This SWMU includes the area of a former fuel oil UST and oil/water separator where petroleum impacted soils were previously observed. The area was excavated as part of the development of Mystic 8&9 (see AOC 7) and is the subject of an MCP Class A-3 Response Action Outcome (RAO) Statement was filed on August 10, 2005. The Class A-3 RAO indicates that a Condition of No Significant Risk exists at the Site under current and future conditions based on the implementation of an Activity and Use Limitation (AUL) serving as an institutional control limiting exposures to any residual subsurface contamination. M&A recommended No Further Action.

SWMU/ AOC Number	SWMU/AOC Name	Waste Managed	Discussion
SWMU 2	RTN 3-10431 (Waste Treatment Plant Storage Tank Farm)	Corrosive Wastewater	In 1994, approximately 931,362 gallons of wastewater were released from the waste treatment plant storage tank farm. The ground surface was frozen at the time, limiting the potential for the release to impact soils or infiltrate the subsurface; however, approximately 361,802 gallons are believed to have flowed into the Mystic River. Based on remedial actions, a Class A-1 RAO was issued on March 14, 1994, indicating that a Condition of No Significant Risk had been achieved, and that contaminants at the Site had been reduced to background. M&A recommended No Further Action.
SWMU 3	Former Wastewater Surface Impoundment	Corrosive Wastewater	SWMU 3 refers to a former wastewater surface impoundment. Testing in 1985 revealed the presence of a leak at the toe seam of the liner. Closure activities were conducted, resulting in MassDEP issuing a clean closure letter. M&A recommended No Further Action.
SWMU 4	Former and Current Wastewater Treatment System	Corrosive Wastewater, Hazardous Chemicals	SWMU 4 includes the remaining portions of the waste water treatment system. M&A recommended No Further Action as there were no documented releases from the system, other than those discussed above.
SWMU 5	Coal Ash Pile	Coal Ash	SWMU 5 concerns the potential, historic on-Site disposal of coal ash. M&A recommended additional assessment; however, discussions between USEPA and Boston Generating resulted in a finding of No Further Action. Historic on-Site coal ash disposal would likely have occurred in the area now occupied by Mystic 8&9. The area was excavated as part of the development of Mystic 8&9 (see AOC 7). The Class A-3 RAO indicates that a Condition of No Significant Risk exists at the Site under current and future conditions based on the implementation of an AUL serving as an institutional control limiting exposures to any residual subsurface contamination.
SWMU 6	Fly Ash Basin	Fly Ash	This SWMU applies to a former fly ash storage basin. No evidence of a release was noted. M&A recommended No Further Action.
AOC 1	Unit 7 Transformer Area	Petroleum Hydrocarbons	This AOC concerns the detection of petroleum hydrocarbons in sediments within a sump associated with non-PCB transformers near the Unit 7 Main and Station Service Transformers. The impacted sediment was subsequently removed. M&A recommended no further action.
AOC 2	Unit 4 Building, Stained Areas	Petroleum Hydrocarbons	This AOC concerns reports of a "greenish liquid" near the eastern exterior of the Unit 4 fuel oil heater room. Although M&A recommended additional assessment, discussions between USEPA and Boston Generating resulted in a finding of No Further Action. Although the exact nature of the liquid cannot be documented, it is likely that the observer was describing fly ash mixed with water (which would result in the noted conditions and green color). General housekeeping practices in place at the time would have required the immediate cleanup of the condition described, and the material would have been incorporated into the facility's existing waste stream.

SWMU/ AOC Number	SWMU/AOC Name	Waste Managed	Discussion
AOC 3	Abandoned Sump Outside Unit 3	Acids	This AOC concerns the potential for a release of acid to surficial soils from an abandoned sump for a former acid tank. Soil screening conducted as part of GZA's recent subsurface investigation program did not indicate the presence of acidic soils in this area.
AOC 4	RTN 3-12422	No. 6 Fuel Oil	Multiple documented releases of No. 6 fuel oil to soil have occurred from a pipeline that transfers fuel oil between Exxon and the facility. Response actions have resulted in a Condition of No Significant Risk under the MCP, and a Class A-2 RAO was filed on August 28, 1995. M&A recommended No Further Action.
AOC 5	Abandoned USTs	No. 2 and No. 6 Fuel Oil	A series of former fuel oil UST were located along the southern property. Closure documentation for these USTs is not available. Analysis of soils and groundwater conducted as part of GZA's recent subsurface investigation program did not indicate the presence of petroleum hydrocarbons above MCP regulatory limits.
AOC 6	Spill of Unknown Location	Fuel Oil	AOC 6 concerns the 1976 release of approximately 9,000 gallons of fuel oil. Although a specific location for this release was not noted, prior reports indicated that the release "likely occurred near oil storage tanks, pipelines, valves, and/or other fuel handling equipment." Although M&A recommended additional assessment, discussions between USEPA and Boston Generating resulted in a finding of No Further Action. Based on the historic operations at the Site, and a review of previous such releases, the most likely locations for a release of this magnitude would be from the underground and above ground pipelines, bulk fuel storage tanks, the storm drain system or fire suppression system all formerly location in the eastern portion of the Site in the area now occupied by Mystic 8&9 Station. The area was excavated as part of the development of Mystic 8&9 (see AOC 7). The Class A-3 RAO indicates that a Condition of No Significant Risk exists at the Site under current and future conditions based on the implementation of an Activity and Use Limitation serving as an institutional control limiting exposures to any residual subsurface contamination.
AOC 7	RTN 3-0923, RTN 3-18553, RTN 3-18717	No. 6 Fuel Oil, Phthalate	AOC 7 refers to a series of historic release which occurred in the area of the current Mystic 8&9 facility. Extensive investigation and remediation were performed in conjunction with these releases, but complete closure could not be achieved due to the presence of buildings and equipment in active use; however, during the development of Mystic 8&9, residual contaminated soil and groundwater were removed from the area and treated or disposed of off-Site. The area was excavated as part of the development of Mystic 8&9. A Class A-3 RAO was filed on August 10, 2005. The Class A-3 RAO indicates that a Condition of No Significant Risk exists at the Site under current and future conditions based on the implementation of an AUL serving as an institutional control limiting exposures to any residual subsurface contamination. M&A recommended No Further Action.

SWMU/ AOC Number	SWMU/AOC Name	Waste Managed	Discussion
AOC 8	RTN 3-12140, RTN 3-17789	No. 6 Fuel Oil	AOC 8 refers to residual NAPL present near Tank 1 and 2, associated with historic releases of No. 6 fuel oil. Structural elements of the facility preclude the excavation of the residual fuel oil; however, a Class C RAO, a Temporary Solution under the MCP indicting that a condition of No Substantial Hazards exist at the Site, was submitted on August 8, 2000. Post Class C RAO monitoring has revealed declining NAPL thicknesses, and recent groundwater sampling has not indicated the presence of petroleum hydrocarbons above MCP regulatory thresholds. M&A recommended No Further Action.
AOC 9	Former Fly Ash Storage Basin Pump Room	Ethylene Glycol	This AOC refers to a release of ethylene glycol which was fully contained within the pump room of a fly ash storage basin. M&A recommended No Further Action.
AOC 10	RTN 3-19849	No. 6 Fuel Oil	This AOC concerns the release of No. 6 fuel oil to a utility trench located in the floor of the Unit 4 building, and subsequently to the Mystic River. Response actions contained the release and remediated impacted receptors. M&A recommended No Further Action as a Class A-1 RAO was filed on July 14, 2001.
AOC 11	RTN 3-22499	No. 2 Fuel Oil	This AOC concerns the release of approximately 187 gallons of No. 2 fuel oil to pavement. The release was remediated, and a Class A-1 RAO was filed on March 21, 2003. M&A recommended No Further Action.
AOC 12	RTN 3-17387	No. 2 Fuel Oil	This AOC concerns the release of approximately 25 gallons of No. 2 fuel oil to the bermed area of Tanks 1 and 2. The release was remediated, and a Class A-1 RAO was filed on December 7, 1998. M&A recommended No Further Action.
AOC 13	Tetrachloroethylene in Groundwater	Tetrachloroethylene	AOC 13 refers to the detection of tetrachloroethylene in groundwater during closure activities associated with the former surface impoundments (See SWMU 3) in the early 1990s. Concentrations detected are below the current, applicable MCP regulatory thresholds. M&A recommended additional assessment for this AOC. GZA has recently installed a groundwater monitoring well in this area to assess for the presence of PCE; groundwater analytical results did not indicate concentrations of volatile organic compounds (VOCs) above laboratory detection limits.
AOC 14	Former Transformers 1, 2, 3, 4, 5, 6 and 11	PCBs	AOC 14 concerns the potential for PCB impacts resulting from historic operation of PCB-containing transformers. M&A recommended assessment of all 7 transformers; however, transformers 4 and 11 are currently in service and were not assessed due to safety concerns. GZA recently undertook a preliminary soil sampling program focused on the remaining transformers. Preliminary results indicate the presence of PCBs in shallow soils above MCP regulatory thresholds at Transformers 3 and 6. Assessment activities are ongoing to determine the extent of PCB impacts at these two locations, and at Transformer 5, where lower concentrations of PCBs were observed. It is anticipated that future work may include the excavation and off-Site disposal of PCB-impacted soils.

SWMU/ AOC Number	SWMU/AOC Name	Waste Managed	Discussion
AOC 15	RTN 3-13744	Hydraulic Oil	In 1996, approximately 19 gallons of hydraulic oil were released, resulting in a sheen on the Mystic River. Response actions were conducted, and a Class A-1 RAO was issued on July 10, 1996. M&A recommended No Further Action.
AOC 16	RTN 3-17445	93.7% Sulfuric Acid	In 1998, approximately 10 gallons of sulfuric acid was released from a failed valve. Response actions were conducted, and a Class A-2 RAO was issued on December 16, 1998. M&A recommended No Further Action.
AOC 17	RTN 3-22934	No-PCB MODF	In 2003, a release of approximately 30 gallons of non-PCB transformer oil occurred. Response actions were conducted, and a Class A-2 RAO was issued on June 23, 2003. M&A recommended No Further Action
AOC 18	RTN 3-22863	No-PCB MODF	AOC 18 concerns the release of approximately 100 gallons of MODF within the 115 kilovolt outdoor electrical substation operated by NStar. The release was remediated and a Class A-2 RAO issued May 28, 2003. M&A recommended No Further Action.
AOC 19	RTN 3-20199	PCB and MODF	AOC 19 concerns the potential for a historic release of PCBs within the 115 kilovolt outdoor electrical substation operated by NStar. M&A initially recommended further assessment; however, NStar personnel provided USEPA with supplemental information documenting appropriate handling of former PCB apparatus, resulting in a finding of No Further Action required.

2. Media Contamination Determination

Groundwater – As described above, identified groundwater contamination at the Site above MCP regulatory thresholds is limited to the presence of NAPL associated with AOC 8. Response actions designed to achieve a permanent solution under the MCP are ongoing. This area is the subject of a Class C RAO Statement, which indicates that there are no Substantial Hazards present at the Site. Additionally, recent groundwater testing from the affected area has indicated that no volatile petroleum hydrocarbons (VPH) or extractable petroleum hydrocarbons (EPH) were detected above laboratory method detection limits. Although AOC 8 is being adequately addressed under the MCP, based on the observed NAPL, GZA has conservatively assumed that groundwater in this area will be considered "contaminated" for the purposes of this checklist.

For a detailed discussion of potential groundwater impacts, please refer to the accompanying "Documentation of Environmental Indicator Determination – Migration of Contaminated Groundwater Under Control" document.

Air (indoors) – OHM identified at the Site under the SWMUs and AOCs described above are generally been limited to heavy oils, metals, polycyclic aromatic hydrocarbons (PAHs) and PCBs. Volatilization of these OHM to indoor air at the facility would not be expected.

Surface Soil – As indicated above, surficial soil contamination by PCBs above regulatory thresholds has been identified at Transformers 3 and 6, associated with AOC 14. PCBs were also detected at lower concentrations around Transformer 5. Additional assessment acitivities are underway to determine the extent of impacts at these three locations, and it is anticipated that future response actions may include the excavation and off-Site disposal of PCB-impacted soil.

The remaining SWMUs and AOC do not exhibit surficial soil contamination above MCP regulatory thresholds.

Surface Water – While there are no surface water bodies on the Site, the entire southern boundary of the Site adjoins the Mystic River. Previous releases to surface water at the Site were documented as described above; however, as noted, these releases have reached regulatory closure with respect to the MCP. Contaminants have been detected in groundwater (i.e. NAPL associated with AOC 8); however, as noted, the observed NAPL plume is being actively addressed under the MCP, and is unlikely that the plume would impact the Mystic River.

For a detailed discussion of potential groundwater impacts, please refer to the accompanying "Documentation of Environmental Indicator Determination – Migration of Contaminated Groundwater Under Control" document.

Sediment – Previous releases to the Mystic River were documented as described above; however, as noted, these releases have reached regulatory closure with respect to the MCP. Contaminant have been detected in groundwater (i.e. NAPL associated with AOC 8); however, as noted, the observed NAPL plume is being actively addressed under the MCP, and is unlikely that the plume would impact sediments within the Mystic River.

Subsurface Soil – As indicated above residual soil contamination is present at the Mystic 8&9 portion of the facility; however, this area is subject to an AUL which provides institutional controls limiting access to the impacted soils. The remaining SWMUs and AOC do not exhibit subsurface soil contamination above MCP regulatory thresholds.

Air (outdoors) – COCs identified at the Site have generally been limited to heavy oils, metals, PAHs and PCBs. These COC are relatively non-volatile and are unlikely to result in impacts to outdoor air at the facility. Additionally, surficial soils at the Site area overlain either by asphalt, concrete, trap rock or building foundations, further minimizing the potential for impacts to outdoor air from windblown dust/air-entrained contaminants.

3. Exposure Pathway Determination

Groundwater – Groundwater at the Site is not classified as a current or potential drinking water source area under Massachusetts regulations. Because this classification indicates that groundwater in this area is not suitable for use as a potable water supply, and because the subject facility and surrounding community are served with public water, ingestion of contaminated groundwater, or use of current water to irrigate food crops is not a viable route of exposure, nor will it be in the future under foreseeable conditions. Furthermore, there is no viable direct or indirect route of exposure of facility employees or construction workers to the identified contaminated groundwater at the Site; The facility is secured and gated; and no residences, day care of recreational facilities exist at the Site.

Surface Soil – Surficial soils at the Site are generally covered by asphalt, concrete, building foundations or, in the case of transformer pads, trap rock, and observed surficial soil contamination is limited to the recently detected PCBs at AOC 14.

Access to the secured, gated facility is strictly controlled; therefore it is unlikely that trespassers could access surficial soils under current site conditions. No residences, day care of recreational facilities exist at the Site. Furthermore, no indirect exposure pathways to these surface soils, such as inhalation of windblown dust/air-entrained soil contaminants and/or ingestion of contaminated food crops are reasonable for human receptors, under current land use conditions.

Although minimal, there is the potential for exposure of Site workers or construction works to surficial soils at the Site during routine maintenance/construction in the impacted areas.

Subsurface Soil – As with surficial soils, subsurface soils at the Site are generally covered by asphalt, concrete, building foundations or, in the case of transformer pads, trap rock. Furthermore, subsurface soil contaminants associated with AOC 7 (Mystic 8&9) are overlain be a 6-foot layer of clean fill, are the subject of an AUL which provides institutional control limiting exposures to any residual subsurface contamination.

Access to the secured, gated facility is strictly controlled; therefore it is unlikely that trespassers could access subsurface soils under current site conditions. No residences, day care of recreational facilities exist at the Site. Furthermore, no indirect exposure pathways to these subsurface soils, such as inhalation of windblown dust/air-entrained soil contaminants and/or ingestion of contaminated food crops are reasonable for human receptors, under current land use conditions. Routine site work does not include access to subsurface soils at the Site.

Although minimal, there is the potential for exposure of construction works to subsurface soils at the Site during construction activities in the impacted areas.

4. Determination of Significant Exposure

Surface Soil – A complete exposure pathway for Site workers and construction workers to surface soils was identified above. Surficial soils at the Site are generally covered by asphalt, concrete, building foundations or, in the case of transformer pads, trap rock, and observed surficial soil contamination is limited to the recently detected PCBs at AOC 14. The likelihood of site workers or construction workers coming into contact with contaminated surface soils is small, under current site conditions. Any event would be minimal and short-lived. Exposure of Site workers and construction workers to surficial soil contamination is not expected to be significant.

Subsurface Soil – A complete exposure pathway for construction workers to subsurface soils was identified above. However, subsurface soil contamination is limited to AOC 7 (Mystic 8&9). The Mystic 8&9 contaminants are overlain be a 6-foot layer of clean fill, are the subject of an AUL which provides institutional control limiting exposures to any residual subsurface contamination. Exposures of construction workers to subsurface soil contaminations is not expected to be significant.